

Remarks/Arguments

Claims 1, 2, 17, and 18 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Archer et al. (US 4,969,408). Claims 3-16 and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Archer.

Applicant respectfully traverses these rejections.

Claim 1 expressly recites an “online monitoring method for a fossil fuel converter apparatus, which monitors fossil fuel compositions in real time by measuring operating data of the converter apparatus, characterized in that said online monitoring method comprises ... finding the solution to the equation set and obtaining real-time monitoring data of the fossil fuel converter apparatus.” The above-cited language of claim 1 clearly and concisely provides that the fossil fuel (coal) compositions are monitored in real time by, *inter alia*, finding a solution to an equation set.

In contrast, Archer does not solve for fossil fuel (coal) compositions using an equation set. Archer states at column 1, lines 53-56 that it uses special and dedicated equipment -- a bulk material analyzer -- to measure fuel compositions. Persons having ordinary skill in the art understand that bulk material analyzers are devices that obtain fuel composition values based on a nuclear radiation effect. In this regard, Archer fails to disclose monitoring fossil fuel compositions in real time by finding a solution to an equation set. Applicant respectfully submits that the absence of this limitation from Archer negates anticipation under Section 102(b) and obviates the rejection.

Applicant further respectfully submits that the alleged obvious modifications proposed by the Examiner at pages 4-8 of the final Office Action do not overcome the above-established fundamental deficiency of Archer. Archer discloses that it relies on

the data generated by its bulk material analyzers to determine an air/fuel mixture that ensures oxygen is available throughout the boiler when the coal is burned while controlling the boiler wall temperature. The *KSR* guidelines issued by the Patent Office require that an obviousness rejection based on substitutions/modifications must obtain predictable results. Applicant respectfully submits that no showing has been made that Archer would produce predictable results if it were modified to eliminate its bulk material analyzer and instead solve an equation set to determine fossil fuel composition. Archer fails how to go about solving for fossil fuel composition values using an equation set; rather, Archer relies on a bulk material analyzer to measure fossil fuel compositions. The alleged equation set of Archer is not designed to and cannot be used to obtain fossil fuel composition values as defined in claim 1 above.

For the above reasons, Applicant respectfully submits that the Section 102/103 rejections of claim 1 are misplaced. Applicant further respectfully submits that claims 2-16 and 19, which depend from claim 1 and include all of its distinguishing features, are also patentable over Archer.

Independent claim 17 is directed to an online monitoring device for performing the method of claim 1, and is respectfully submitted to be patentable over Archer for the reasons discussed above. Claim 18 depends from claim 17 and therefore incorporates its distinguishing features.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the Section 102(b) and 103(a) rejections of claims 1-19.

The application is believed to be placed in condition for allowance. Accordingly, reconsideration of the rejections and issuance of a Notice of Allowance are earnestly solicited. In the event any outstanding issue is found to exist, the Examiner is urged to contact the undersigned for expeditious resolution.

Respectfully submitted:



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